
Petrocosmea xingyiensis (Gesneriaceae), a New Species from Guizhou, China

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ABSTRACT. A new species, *Petrocosmea xingyiensis* Y. G. Wei & F. Wen, is described and illustrated from Maling Gorge, Xingyi County, Guizhou Province, China. The new species differs from related species in the genus by its narrowly oblanceolate leaves that are pubescent on both surfaces.

Key words: China, Gesneriaceae, Guizhou, IUCN Red List, *Petrocosmea*.

Petrocosmea Oliver (Gesneriaceae) was established in 1887 and is comprised of 27 species (Li & Wang, 2004), 24 of which are found in China (Wang et al., 1990, 1998). These plants are characterized as perennial, terrestrial or epipetric, and stemless (Li & Wang, 2004). The inflorescences are usually lax, rarely in subumbels, with corollas that are blue to purple or white, and zygomorphic. The new species is distinctive in its narrowly oblanceolate leaves that are pubescent on both surfaces, which differs from the possibly related *P. grandiflora* Hemsley.

Petrocosmea xingyiensis Y. G. Wei & F. Wen, sp. nov. TYPE: China. Guizhou: Xingyi, Maling Gorge, 10 Sep. 2006, F. Wen 06101 (holotype, IBK). Figure 1.

Haec species *Petrocosmeae grandiflorae* Hemsley affinis, sed ab ea foliis anguste oblanceolatis utrinque pubescentibus differt.

Perennial herb, rosettes, with short rhizome and crowded fibrous roots. Leaves 16 to 30, all basal, crowded, the inner leaves with petiole short or absent, the outer leaves with longer petiole; leaf blades papery when dry, narrowly oblanceolate, 0.3–3 × 0.2–0.7 cm, apex obtuse, base cuneate, margin entire, pubescent on both surfaces, lateral veins 2 to 3 on each side, not distinct; petioles 0.6–2.5 cm, densely pubescent. Cymes 2 to 3, 1-flowered; peduncle 3–4.4 cm, pubescent; bracts 2 or 3 at mid-peduncle, ovate, 1–2 mm, pubescent; sepals 5, triangular to ovate, ca. 4 ×

2 mm, pubescent externally; corolla blue, sparsely pubescent externally; corolla tube ca. 7 mm, lobes ovate to rounded, adaxial lip ca. 6 × 6 mm, bi-lobed to basal 1/7, abaxial lip ca. 8 × 8 mm, tri-lobed to basal 1/2; stamens 2, ca. 5 mm; filaments adnate to ca. 1 mm above base of corolla tube, ca. 4 mm long, pubescent; anthers ovate, ca. 3 mm, glabrous; staminodes 2, adnate to ca. 1 mm above base of corolla tube, ca. 2 mm long, glabrous; pistil ca. 8 mm; ovary pubescent; style pubescent, ca. 6 mm.

Habitat and distribution. *Petrocosmea xingyiensis* is known from cliffs of limestone rock or along the Qingshuihe River, at 930–1000 m elevation in Maling Gorge, Xingyi County, Guizhou Province, in southwestern China.

IUCN Red List category. The new species is assessed as Critically Endangered (CR A2c) according to IUCN Red List criteria (IUCN, 2001). Approximately 330 individuals were found in three separate, restricted localities in the gorge: 10 individuals growing in the first locality of ca. 1 × 1 m², 20 individuals in the second locality of ca. 2 × 2 m², and ca. 300 individuals in the third locality of ca. 10 × 10 m². There is a path connecting and adjacent to the three localities, which many tourists access daily and which represents the principal threat to the plants.

Phenology. *Petrocosmea xingyiensis* has been collected in flower in September–October; fruits not seen.

Discussion. Based on floral structure, notably the anthers that are not constricted, the actinomorphic calyx divided in five segments, the upper lip ca. one half the length of the lower lip, and the inconspicuously two-lobed upper lip that is slightly concave, *Petrocosmea xingyiensis* belongs to sect. *Anisochilus* ser. *Iodioides*. The new species is related to *P. grandiflora*, but differs in several characters (Table 1).

Paratype. CHINA. **Guizhou:** Maling Gorge, Xingyi, 7 Oct. 1998, S. K. Wu, Y. Tateishi, T. Sugawara 10432 (KUN, MAK).

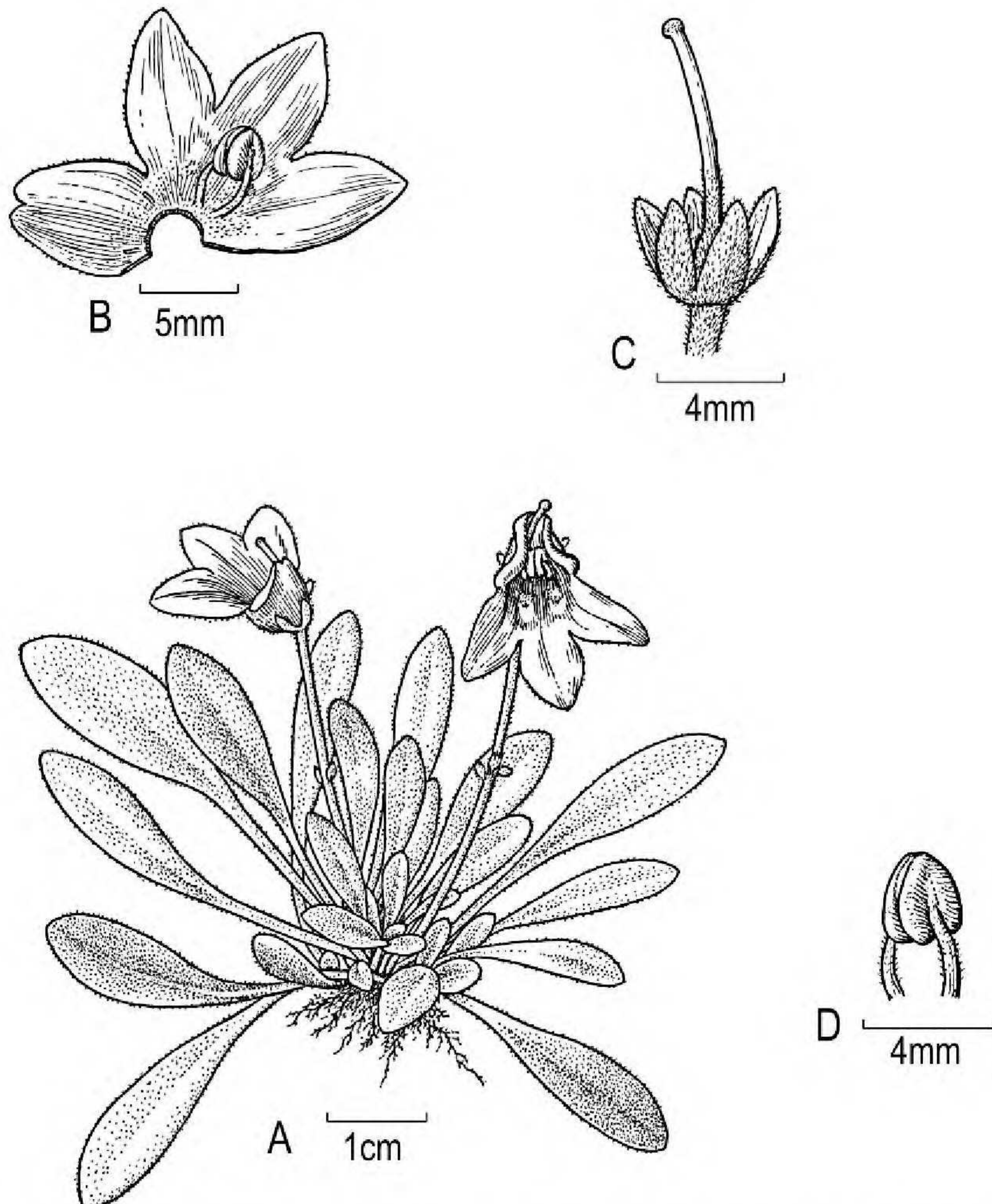


Figure 1. *Petrocosmea xingyiensis* Y. G. Wei & F. Wen. —A. Habit. —B. Dissected corolla. —C. Calyx and pistil. —D. Stamens. Drawn from the holotype *F. Wen 06101* (IBK) by S. Q. He.

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Table 1. Diagnostic characters of *Petrocosmea xingyiensis* and *P. grandiflora*.

	<i>P. xingyiensis</i>	<i>P. grandiflora</i>
Leaves	narrowly oblanceolate, pubescent on both surfaces	elliptic or lanceolate to broadly ovate, adaxially sericeous, abaxially sparsely sericeous
Corolla	adaxial lip ca. 0.6 cm, bi-lobed to basal 1/7	adaxial lip ca. 0.9–1 cm, bi-lobed to basal 1/3–1/2